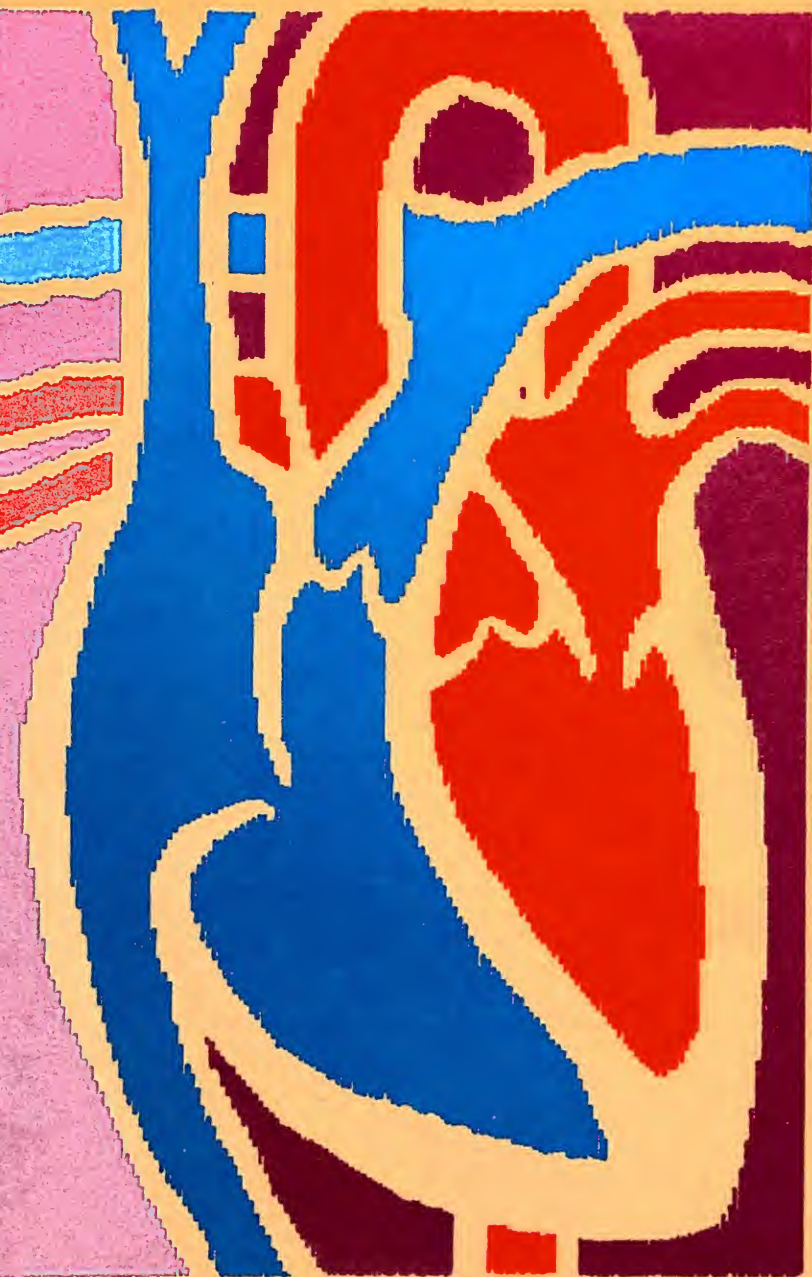


HEARTBEAT HEARTWORK HEARTFLOW

Teaches about the Heart on a 48k Apple with:
life-sized beating heart — inside and out,
Heartsaver X-Ray game, illustrated anatomy
reference, quizzes, test, glossaries and
a pronunciation heart terms dictionary.



© Copyright 1983, Roy Alexander, Grand Prize Winner of 1983
American Heart Association Heart Courseware Contest.
Graphics created with the aid of Penguin Software's Special Effects.

for school, home, and health care facilities

Distributed by J & S Software, 140 Reid Av., Port Washington, NY 11050

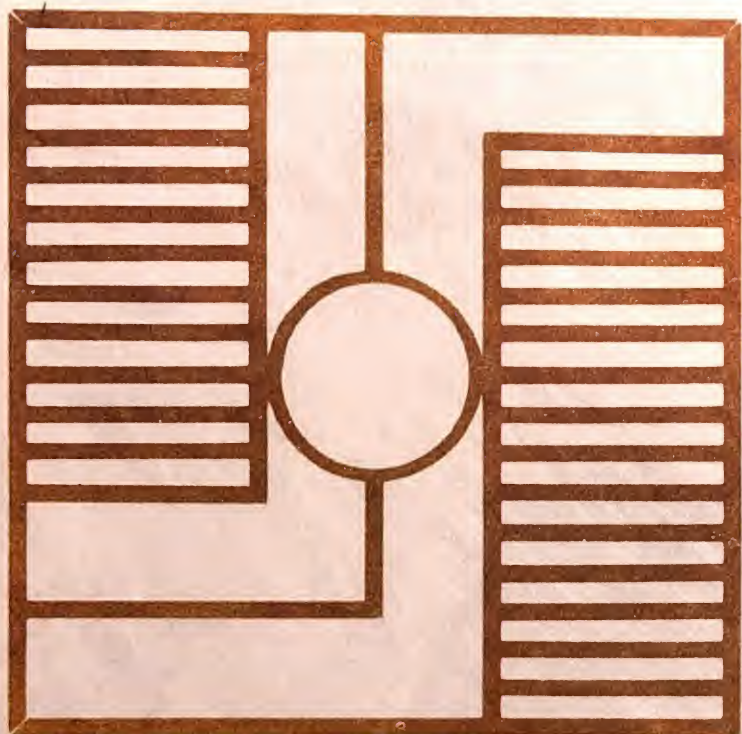
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EDUCATIONAL SOFTWARE

HEARTBEAT/HEARTWORK/HEARTFLOW

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J&S Software

HEARTBEAT / HEARTWORK / HEARTFLOW

OBJECTIVES

The objective of this program is to inform its users of the basic properties of their hearts and other parts of the circulatory system. This information will provide a foundation for further study of the body as well as to guide users towards self care and proper health maintenance. When the users have finished with this program they will be able to do the following:

1. Explain how blood is made to flow through the heart.
2. Name the parts of the heart and explain their function.
3. Recognize diagrams of the heart.
4. Explain some of the risks of smoking and obesity to the heart.
5. Explain the function of the circulatory system.
6. Pronounce, define, and spell heart terms.

AUTHOR

The author of this courseware is Roy Alexander, designer of Health Education Centers throughout the world. An exhibit designer of 25 years experience, he has specialized in the latter half of his career in communicating scientific and health principles to museum audiences, principally children. In the computer, he claims to have found the best of all media for communicating basic health principles. Mr. Alexander won the grand prize for the 1983 American Heart Association Courseware Contest.

DESCRIPTION

This tutorial disk employs the maximum capabilities of the computer. It includes a quiz on the heart and blood. There is a heart-saver game, extensive graphics illustrating the heart and tests. It has an illustrated subject reference, a dictionary and two glossaries. No documentation is needed to use this program.

USES

Heartbeat / Heartwork / Heartflow may be used in a classroom setting as part of a human biology, physiology or health course. The material is designed to serve equally well as an independent unit for home use by the student or by any heart-concerned individual wishing for an understanding about his/her own heart functions.

CLASSROOM USE

As students progress through this program they will be able to review each tutorial section. When finished with the tutorial aspect of the program, they can refer to the four reference units, the anatomy test, the heartsaver game, and the teaching segments for more reinforcement and information. These can easily be accessed from a menu.

The teacher can use the courseware tests to verify learning. Written tests may be made from the courseware material if desired. The bibliography names books suitable for the creation of course material and examinations. Carolina Biological and Hubbard Scientific have excellent aids for classroom use in teaching about the heart and circulation.

The teaching begins with a non-technical approach employing a fine graphic animation of a life sized, beating heart. This alternates with interesting and important heart facts. At the conclusion of this segment there is a short quiz to correct commonly held misinformation and to introduce new information about the heart and blood and their relationship with other body systems.

The heart's method of operation is then demonstrated with the cross section of a beating heart. Here the anatomy and physiology of the heart are taught together in computer/unique fashion with the cross section of a beating heart coordinated with a moving blood flow indicator and text material. The material concentrates on familiarizing the student with the three phases of the heartbeat, the pumping function of the two

sides of the heart and the names of the valves and major connecting arteries and veins.

Following the straight tutorial, the user has a wide choice of options. One of the options is the Heartsaver, a game that incorporates much of the previous graphics to reinforce the teaching of the heartbeat phases and heart anatomy. The game player performs in the role of an X-ray technician determining which section of the heart is damaged. Another interesting challenge tests the user's learning about the blood flow sequence and heart anatomy. The heart anatomy illustrated reference option permits sharpening skills for both the game and test. A heart terms' dictionary provides pronunciation guides and explanations of the functions of different areas in and around the heart. One of the two glossaries contains technical definitions of the physiology of the circulatory system and related health subjects. The other glossary covers the other body systems.

OTHER USES

The Heartbeat / Heartwork / Heartflow courseware disk is also valuable as a primer for the many adults who have need, for medical reasons, to understand the workings of their own heart. This knowledge can help in improved health care. This courseware can be located in doctor's offices, hospitals, and clinics. Health care service organizations and insurance companies might establish a lending library for their own benefit as well as their clients.

HEART TERMS

The following anatomical and physiological terms are clearly identified, explained and presented in this courseware:

diastole	artery
atrial systole	vein
ventricular systole	capillary
vena cava	pulmonary veins
right atrium	left atrium
tricuspid valve	mitral valve
right ventricle	left ventricle
pulmonary valve	aortic valve
pulmonary artery	aorta

heart wall
blood

septum
circulatory system

BIBLIOGRAPHY

Boolootian, Richard J. Elements of Human Anatomy and Physiology. St.Paul, MN: West Publishing Co.

David / Park. The Heart: The Living Pump. New York, NY: U.S. News Books, 1971.

Fisher, A. The Healthy Heart. Alexandria, VA: Time-Life Books Inc, 1981.

Gray, Henry. Anatomy, Descriptive and Surgical. Phila. PA: Running Press.

Vander / Sherman / Luciano. Human Physiology: The Mechanisms of Body Function. New York, NY: Mc Graw Hill, Inc.

DIRECTIONS FOR USE

Insert the disk in Drive 1, label side up. Either turn the computer on or, if the computer is on, type PR#6 and then press the <RETURN> key. The program will start to appear on the screen. Follow the directions that appear on the screen. Pressing a single key will advance the program to the selection of choice or bring the next screen or action.

Press the <ESC> key at any input time to return to the main menu and its exit options. Replace the disk in its original sleeve when finished.

This program is designed for an Apple II, Apple II plus, Apple IIe and the Apple III in emulation mode. At least 48k of memory is required. The user should be able to read at 5th grade level or higher.

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